## WHAT IS CLAIMED IS:

A diffraction type lens, disposed in a luminous flux, having a 1. wavelength selectivity;

said lens being constituted by a substrate having one surface formed with a zone plate exhibiting a smaller converging action with respect to a wavelength  $\lambda_1$  of light and a greater converging action with respect to a wavelength  $\lambda_2$  of light, and the other surface formed with a zone plate exhibiting a smaller converging action with respect to said wavelength  $\lambda_2$  of Jight and a greater converging action with respect to said wavelength  $\lambda_1$  of light, said substrate being transparent to said wavelengths  $\lambda_1$  and  $\lambda_2$  of light.

- A diffraction type Lens according to claim 1, wherein said diffraction type lens is shaped like a paralløl plate.
- A diffraction type lens according to claim 1, wherein each of said 3. zone plates comprises concentric gratings each having a rectangular cross section.
- A diffraction type lens according to claim 1, wherein said one surface formed with the zone/plate has a height h<sub>1</sub> satisfying the following conditional expressions (1) and (2), and said the other surface formed with the zone plate has a height h<sub>2</sub> satisfying the following conditional expressions (3) and (4):

$$h_1 = L_1 \lambda_1 / (p_1' - 1) \tag{1}$$

$$h_1 = M_1 \lambda_1 / (n_2 - 1) + K_1 \lambda_2 / 2(n_2 - 1)$$
 (2)

$$h_{2} = L_{2} \lambda_{1} / (n_{2} - 1)$$

$$h_{2} = M_{2} \lambda_{1} / (n_{1} - 1) + K_{2} \lambda_{1} / 2(n_{1} - 1)$$
(3)
$$(4)$$

$$h_2 = M_2 \lambda_1 / (n_1 - 1) + K_2 \lambda_1 / 2(n_1 - 1)$$
 (4)

where

 $\lambda_1$  and  $\lambda_2$  are the respective wavelengths of two incident light beams;

n/is the refractive index of a grating portion with respect to the wavelength  $\lambda_1$  of light;

n<sub>2</sub> is the refractive index of a grating portion with respect to the wavelength

L<sub>1</sub> and L<sub>2</sub> are positive integers;

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 $M_1$  is the maximum value among 0 and positive integers satisfying the conditional expression of  $h_1 > M_1 \lambda_2 / (n_2 - 1)$ ;

 $M_2$  is the maximum value among 0 and positive integers satisfying the conditional expression of  $h_2 > M_2 \lambda_1/(n_1-1)$ ; and

 $K_1$  and  $K_2$  are values of at least 0.65 but not exceeding 1.35.

- 5. An optical pickup apparatus comprising the diffraction type lens according to claim 1, wherein said luminous flux incident on said diffraction type lens is substantially/a parallel luminous flux.
- An optical pickup apparatus according to claim 5, wherein said luminous flux is converged at a position where two kinds of optical recording media having thickness values different from each other are disposed, said wavelength  $\lambda_1$  of light being used for recording or reproducing one optical recording medium, said wavelength  $\lambda_2$  of light being used for recording or reproducing the other optical recording medium.

